

Jarrold Olson, MPP

Director, Health Analytics

Quick Facts

- ✓ 10+ years of experience in political & data science
- ✓ Serves as Karna's Director of Health Analytics

678-861-4134 | jolson@karna.com | [LinkedIn](#)



Jarrold Olson serves as Karna's Director of Health Analytics. In this role, he is responsible for strengthening Karna's analytics capabilities and executing the new analytics strategy. He is an experienced project leader who has implemented and driven the adoption of data science development operations. He is leading the integration of non-traditional analytics into our solution offerings to help health organizations better organize and utilize the vast amounts of data now available to them.

He specializes in designing and implementing Machine Learning (ML), Artificial Intelligence (AI), Natural Language Processing (NLP), and analytics platforms to fit decision-making needs. He applies these capabilities to:

- Identify patterns in public and clinical health data (ML)
- Establish automated decision tools that help organizations make data-driven decisions (AI)
- Recognize emerging health challenges on social media, within health records, or other text-based data (NLP)
- Streamline and improve data analysis for scientists and other key stakeholders (analytics platforms)

Jarrold has more than 10 years of experience in policy and data science. Before joining Karna, he served as a Senior Software Engineer at Battelle, where he contributed to new capability development within discrete event simulation, NLP, and ML/AI offerings in health analytics. In addition to technical contributions, he led a mixed data science and software engineering team and served in a business development capacity for the analytics systems he and his team developed. Before joining Battelle, Jarrold was a Research Scientist at Pacific Northwest National Laboratory in Richland, Washington, for six years.

EXPERTISE

- Requirements gathering analysis
- Software design and implementation
- Automated testing
- Continuous integration and deployment
- Agile planning and development methods
- Research design
- Econometrics
- Simulation and forecasting
- Machine Learning and Artificial Intelligence
- Natural Language Processing
- Graph analysis
- Data visualization
- Analytics platform development
- Policy science

- Behavioral economics and decision-making

ARTICLES & INSIGHTS

Peer-reviewed Manuscripts

Vernon, CR, Zuljevic, N, Rice, JS, Seiple, TE, Kintner-Meyer, MCW, Voisin, N, Kraucunas, IP, Chunlian, J, Olson J, Schmidt, L, Morris, SL, Patel, Pralit. CERF – A Geospatial Model for Assessing Future Energy Production Technology Expansion Feasibility. *Journal of Open Research Software*. 2018, 6(3). <https://doi.org/10.5334/jors.227>

Olson J and Stone D. Suspense Optimal College Football Playoffs. *Journal of Sports Economics* 2014. 15(5): 519-540. doi:10.1177/1527002514541040

Lesperance AM, Olson J, Stein S, Clark R, Kelly H, Sheline J, Tietje G, Williamson M, and Woodcock J. Biosecurity and Bioterrorism: Biodefense Strategy, Practice and Science. September 2011, 9(3): 280-287. doi:10.1089/bsp.2011.0031.

Publicly Available Technical Reports

Olson, J., Chen P.H.A, White, M., Brennan, N., and Gong, N. (2019). State Drug Policy Effectiveness: Comparative Policy Analysis of Drug Overdose Mortality. arXiv:1909.01936 [Stat]. Retrieved from <https://arxiv.org/abs/1909.01936>

Olson, J., Rahimi, A., Chen, P. H. A., Jackson, J. E., Coy, T., Cocci, A., McMillan, N., Geppert, J. (2018). Rapid Prototyping Model for Healthcare Alternative Payment Models: Replicating the Federally Qualified Health Center Advanced Primary Care Practice Demonstration. ArXiv:1812.03940 [Stat]. Retrieved from <http://arxiv.org/abs/1812.03940>

Olson J. "Food Safety." In Steel, Brent (ed.). "Science and Politics: An A-to-Z Guide to Issues and Controversies." 2014. (Thousand Oaks: CQ Press).

Olson J. "Food Fight: The Effect of Food Availability on the Probability of Violent Conflict Onset." 2013. Oregon State University Master of Public Policy Student Research Papers [Thesis]. <http://hdl.handle.net/1957/38868>

Judd KS, J Olson, SL Stein, and AM Lesperance. Economic Impacts of a Wide Area Release of Anthrax. 2009. PNNL-18448, Pacific Northwest National Laboratory, Richland, WA.

Presentations

Olson J, JM Rose, M Sitaker. "A Novel Heuristic for Assessing Social Network Data Reliability with Survey Non-Response." 2017. Southern Political Science Association 87th Annual Conference. New Orleans, Louisiana.

Olson J, JL Barr, ER Burtner, and CL West. "Policy and Technology Readiness: Engaging the User and Developer Community to Develop a Research Roadmap." 2015. In ISCRAM 2015 Proceedings. PNNL-SA-107855, Pacific Northwest National Laboratory, Richland, WA.